

**STANDARDS PRESENTATION
TO
CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH STANDARDS BOARD**

Attachment No. 1

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PROPOSED STATE STANDARD,
TITLE 8, CHAPTER 4

Amend Section 4794 to read as follows:

§ 4794. Purpose.

(a) The following Group 10 orders ~~are intended to~~ shall apply to the installation and operation of all gas welding and cutting systems ~~when used with, and cover all gases when used with and~~ oxygen for welding, flame cutting, heating and heat treating operations and includes brazing and soldering. The definitions for brazing and soldering as contained in American National Standards Institute (ANSI)/American Welding Society (AWS) A3.0-94, Standard Welding Terms and Definitions are hereby incorporated by reference.

(b) ~~Where only a portion of a fuel gas system is to be used with oxygen for the welding, flame cutting, heating and heat treating operations specified in subsection (a), only that portion of the system need~~ shall comply with these orders and ~~that portion~~ shall be separated from the main system by means of a suitable hydraulic back-pressure valve. These orders also govern the storage of calcium carbide and of gases used in these processes and the installation and operation of acetylene generating systems. ~~(Title 24, T8-4794)~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 4848 to read:

§ 4848. Fire Prevention and Suppression Procedure.

(a) ~~Management~~ The employer shall establish a fire prevention and suppression procedure ~~relative to whenever any of the operations and processes covered by Sections 4794(a) and 4850(a) are conducted use of cutting and welding equipment on its property. and~~ The employer shall issue and implement instructions- ~~Instructions shall be based upon the requirements contained in American National Standards Institute (ANSI/ASC) Z49.1-94, Safety In Welding, Cutting and Allied Processes, Chapters 3 and 6 and National Fire Protection Association (NFPA) 51B-1999, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, Chapter 3, which are hereby incorporated by reference. the applicable parts of ANSI Z49.1 1973,~~ portions of which are reproduced below:

- ~~(1) Based on fire potentials of plant facilities, establish approved areas for cutting and welding, and establish procedures for approving cutting and welding in other areas.~~
- ~~(2) Designate an individual responsible for authorizing cutting and welding operations in areas not specifically designed or approved for such processes.~~
- ~~(3) Insist that only approved apparatus, such as torches, manifolds, regulators or pressure reducing vales, and acetylene generators, be used.~~
- ~~(4) Insist that cutters or welders and their supervisors are suitably trained in the safe operation of their equipment and the safe use of the process.~~
- ~~(5) Select contractors to perform hot work involving cutting or welding who have suitably trained personnel and who have an awareness of the magnitude of the risks involved.~~
- ~~(6) Advise all contractors about flammable materials or hazardous conditions of which they may not be aware.~~
- ~~(7) The supervisor of cutting or welding operations in areas not designed or approved for such processes may be a supervisor in a large plant or a plant manager or owner in a small one. In contract operations this may be the contractor or one of the supervisors who:~~
 - ~~(A) Shall be responsible for the safe handling of the cutting or welding equipment and the safe use of the cutting or welding process.~~
 - ~~(B) Shall determine the combustible materials and hazardous areas present or likely to be present in the work location.~~
 - ~~(C) Shall protect combustibles from ignition by the following:~~
 - ~~1. Have the work moved to a location free from dangerous combustibles;~~
 - ~~2. If the work cannot be moved, have the combustibles moved to a safe distance from the work or have the combustibles properly shielded against friction;~~
 - ~~3. See that cutting and welding are so scheduled that plant operations that might expose combustibles to ignition are not started during cutting or welding.~~
 - ~~(D) Shall secure authorization for the cutting or welding operations from the designated management representative.~~

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~~(E) Shall determine that the cutter or welder secures his approval that conditions are safe before going ahead.~~

~~(F) Shall determine that fire protection and extinguishing equipment are properly located at the site.~~

~~(G) Where fire watchers are required, the employer shall see that they are available at the site.~~

~~(8) Before cutting or welding is permitted, the area shall be inspected by the individual responsible for authorizing cutting and welding operations. The employer shall designate precautions to be followed in granting authorization to proceed, preferably in the form of a written permit.~~

~~(9) Cutting or welding shall not be permitted in the following situations:~~

~~(A) In areas not authorized by management.~~

~~(B) In areas near the storage of large quantities of exposed, readily ignitable materials such as bulk sulfur, baled paper or cotton.~~

~~(10) Cutting or welding shall be permitted only in areas that are or have been made firesafe. Such areas shall be of noncombustible or fire resistive construction, essentially free of combustible and flammable contents, and suitably segregated from adjacent areas. When work cannot be moved practicably, as in most construction work, the area shall be made firesafe by removing combustibles or protecting combustibles from ignition sources.~~

~~(11) Where combustible materials such as paper clippings, wood shavings or textile fibers are on the floor, the floor shall be swept clean for a radius of 35 feet. Combustible floors shall be kept wet, covered with damp sand, or protected by fire resistant shields. Where floors have been wet down, personnel operating are welding or cutting equipment shall be protected from possible shock.~~

~~(12) Where practicable, all combustibles shall be relocated at least 35 feet from the work site. Where relocation is impracticable, combustibles shall be protected with flame proofed covers or otherwise shielded with suitable guards or curtains.~~

~~(13) If the object to be welded or cut can not readily be moved, all movable fire hazards in the vicinity shall be taken to a safe place.~~

~~(14) Where objects to be welded or cut are not movable and where fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards and nearby personnel.~~

~~(15) Wherever there are cracks or openings in the floor that cannot be closed or covered, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks which might drop through the floor. The same precautions shall be observed with regard to cracks or openings in walls, open doorways, and open or broken windows.~~

~~(16) Ducts and conveyor systems that might carry sparks to distant combustibles shall be suitably protected or shut down.~~

~~(17) Where cutting or welding is done near walls, partitions, ceiling or roof of combustible construction, fire resistant shields or guards shall be provided to prevent ignition. If welding is to be done on a metal wall, partition, ceiling or roof, precautions shall be taken to prevent ignition~~

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~~of combustibles on the other side, due to conduction or radiation, preferably by relocating combustibles. Where combustibles are not relocated, a fire watch on the opposite side from the work shall be provided. Welding shall not be attempted on a metal partition, wall, ceiling or roof having a combustible covering nor on walls or partitions of combustible sandwich type panel construction.~~

~~(18) Cutting or welding on pipes or other metal in contact with combustible walls, partitions, ceilings or roofs shall not be undertaken if the work is close enough to cause ignition by conduction.~~

~~(19) Suitable fire extinguishing equipment shall be maintained ready for use while welding and cutting are being performed.~~

~~(20) Fire watchers shall be required whenever welding or cutting is performed in locations where other than a minor fire might develop, or whenever any of the following conditions exist:~~

~~(A) Proximity of Combustibles. Appreciable combustible material, in building construction or contents, closer than 35 ft. to the point of operation.~~

~~(B) Ignitable Combustibles. Appreciable combustibles easily ignited by sparks.~~

~~(C) Openings. Wall or floor openings within a 35 ft. radius expose combustible material in adjacent areas including concealed spaces in walls or floors.~~

~~(D) Metal Walls. Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.~~

~~(21) Fire watchers shall be trained in the use of fire extinguishing equipment. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained for at least 1/2 hour after completion of welding or cutting operations to detect and extinguish smoldering fires.~~

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.

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Amend Section 4850 to read as follows:

§ 4850. General.

(a) Group 11 orders shall apply to all electrical equipment when used to perform electric welding, cutting, heating and other operations and processes pertaining to electric welding and includes resistance brazing and resistance soldering. The definitions for resistance brazing and resistance soldering as contained in American National Standards Institute/American Welding Society, ANSI/AWS A3.0-94, Standard Welding Terms and Definitions, are hereby incorporated by reference.

(a~~b~~) All electrical ~~welding~~ equipment used to perform operations and processes noted in subsection (a) shall be installed and maintained in accordance with the California Electrical Safety Orders and this section. For additional details see applicable technical portions of chapters 11, 12 and 13 of the American National Standards Institute, ANSI/ASC Z49.1-1973~~94~~, Safety in Welding, and Cutting, and Allied Processes, which are hereby incorporated by reference. which shall apply.

(b) The applicable portions of Section 4848 shall apply to all electric welding operations.

NOTE: Authority cited: Section 142.3, Labor Code. Reference: Section 142.3, Labor Code.